

INTERNATIONAL SEARCH REPORT

International Application No
PCT/FR2004/002509

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 C22C29/12 B22F3/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 B22F C22C C25C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4 871 438 A (STEVEN C. MARSCHMANN) 3 October 1989 (1989-10-03)	1-11, 18-29, 35,41-46
Y	column 4, line 6 - column 5, line 54 -----	31-34
Y	US 4 473 483 A (IMAMURA ET AL) 25 September 1984 (1984-09-25) column 8, line 17 - line 29 -----	31-34
X	US 4 713 300 A (HAROLD G. SOWMAN) 15 December 1987 (1987-12-15) column 5, line 34 - column 6, line 34 ----- -/-	1-4, 11-18, 30,34, 36-40

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

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Date of the actual completion of the international search

24 May 2005

Date of mailing of the international search report

01/06/2005

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PCT/FR2004/002509

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4 529 494 A (JOO' ET AL) 16 July 1985 (1985-07-16) column 5, line 18 - line 21 column 5, line 27 - line 29 -----	46
A	WO 01/31089 A (ALCOA INC.) 3 May 2001 (2001-05-03) the whole document -----	1-38
A	US 4 089 681 A (GUEUSSIER ET AL) 16 May 1978 (1978-05-16) column 2, line 16 - line 68 column 4, line 7 - line 14 -----	22-29
A	EP 1 268 105 A (ENDRICH, MANFRED; KOCHANEK, WOLFGANG) 2 January 2003 (2003-01-02) paragraph '0029! -----	24,25, 28,29

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No	
PCT/FR2004/002509	

Patent document cited in search report	Publication date	Patent family member(s)		Publication date
US 4871438	A 03-10-1989	AU 615017 B2 AU 2791789 A EP 0396586 A1 WO 8904383 A1 ZA 8807809 A		19-09-1991 01-06-1989 14-11-1990 18-05-1989 27-06-1990
US 4473483	A 25-09-1984	JP 1140038 C JP 55085426 A JP 57019055 B CA 1123591 A1 DE 2966901 D1 DK 547679 A ,B, EP 0013009 A1		24-03-1983 27-06-1980 20-04-1982 18-05-1982 17-05-1984 22-06-1980 09-07-1980
US 4713300	A 15-12-1987	AU 578550 B2 AU 6586486 A CA 1284022 C DE 3685639 D1 DE 3685639 T2 EP 0226438 A2 JP 62222042 A KR 9410098 B1 SG 126092 G US 4743511 A		27-10-1988 18-06-1987 14-05-1991 16-07-1992 04-02-1993 24-06-1987 30-09-1987 21-10-1994 19-02-1993 10-05-1988
US 4529494	A 16-07-1985	NONE		
WO 0131089	A 03-05-2001	US 6423195 B1 AT 284459 T AU 1244801 A CA 2388908 A1 DE 60016624 D1 EP 1230437 A1 WO 0131089 A1 US 2003121775 A1 US 6423204 B1 US 2002056650 A1		23-07-2002 15-12-2004 08-05-2001 03-05-2001 13-01-2005 14-08-2002 03-05-2001 03-07-2003 23-07-2002 16-05-2002
US 4089681	A 16-05-1978	FR 2366364 A1 BR 7700639 A CA 1103932 A1 DE 2704290 A1 ES 455576 A1 GB 1577020 A IT 1078012 B JP 52095512 A MX 143510 A SE 7701215 A ZA 7700584 A		28-04-1978 18-10-1977 30-06-1981 04-08-1977 01-05-1978 15-10-1980 08-05-1985 11-08-1977 21-05-1981 04-08-1977 26-04-1978
EP 1268105	A 02-01-2003	DE 10014403 A1 AT 267655 T AU 5621201 A CA 2424733 A1 DE 50102410 D1 DK 1268105 T3 WO 0172456 A1 EP 1268105 A1		27-09-2001 15-06-2004 08-10-2001 01-04-2003 01-07-2004 04-10-2004 04-10-2001 02-01-2003

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/FR2004/002509

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 1268105 A		ES 2222991 T3 JP 2003528979 T US 2004067152 A1	16-02-2005 30-09-2003 08-04-2004